

The MINES of ARIZONA

This department is under the direction of Mr. W. E. Defty, the well known mining engineer, who will carefully scrutinize all matters relating to mining in order that only reliable information regarding legitimate enterprises shall find a place here.

The Republic would be pleased to receive information from any part of the state regarding the development of the mining industry. All communications should be addressed: Mining Department, Arizona Republican.

Jerome Verde

The nature of the work now being done at the Jerome Verde is pointed out by L. L. Winkelman & Co. of New York in their latest market letter as follows:

At the moment, particular attention centers on the development work on its property now being prosecuted by the United Verde Extension under an agreement said to be mutually advantageous to both companies. The work is being undertaken on the Jerome Verde property by the United Verde Extension includes the running of a drift south on the 1400-foot level until the boundary of the Jerome Verde is reached. It is stated they have but 100 feet yet to go before this point is reached, and from the line of continuity between the two mines the direction will be north.

Judging from the general trend of the recent strike in the United Verde Extension, it looks as if the ore body would pass through a portion of Jerome Verde's ground. The company also contemplates sinking a second shaft at about the center of its property. Engineers have been on the ground several weeks, determining the most advantageous point for the sinking of this shaft.

"The mine making possibilities of Jerome Verde are exceptional, considering that its property lies between two of the best producers in the state of Arizona."

Jerome Victor

Unwatering of the shafts of the Jerome Victor Extension has begun. All of the copper in the Jerome camp is said to be found below the water level but there will be no difficulty encountered in keeping the shafts dry as the property is equipped with splendid pumps and has ample power from the high tension lines running to the land.

The company will at once commence sinking and will, at the same time, explore and develop the several ore stringers said to have been cut through by the old managemant.

A. & A.

The Arkansas & Arizona Copper Co. reports sufficient proxies in hand to assure the merger with the adjoining stockholders property, and financing of development work by New York interests. The properties adjoin United Verde and Jerome at Jerome.

The proposed merger will be voted upon on May 31.

Consolidated Arizona Smelting Co.

In his report for the past year, the general manager, G. M. Colvocoresses, covers operation of the smelter at Humboldt and the Blue Bell and De Soto mines.

In the Blue Bell development

amounted to 2743 ft., opening 165,000 tons of new ore. The shaft was sunk 150 ft. to 1000 ft. depth. Reserves are estimated at 235,000 tons, averaging 3.5 per cent copper and \$1.50 gold and silver. Prospects for a large increase in tonnage are good. A new hoist of 2000 ft. capacity was erected. The output was \$2,171 tons, assaying 2.97 per cent copper and \$1.40 in precious metals. This was an increase of 26,171 tons over that of 1914. The current year will also be greater. All mining charges were \$2,629 per ton. The De Soto mine was re-opened and fully equipped, producing 3369 tons of ore, containing 3.5 per cent copper and \$1.50 gold and silver. The present output is at the rate of 40,000 tons per year. Reserves are 65,000 tons. Eight ore-shoots, none very large, are being mined. The future of this mine is also good.

The mill treated 81,544 tons of ore and tailing averaging 2.53 per cent copper, with 88.6 per cent recovery of this metal, 62.5 per cent of the gold, and 79.5 per cent of the silver. There was produced 19,877 tons of 10.27 per cent copper concentrate. Results were in advance of those for 1914. The cost, including flotation royalty, was \$1.29 per ton, against \$1.82 in 1914, and \$2.09 in 1915. Only gravity concentration was employed in the latter year. The plant's capacity is to be increased from 240 to 500 tons daily.

The smelter reduced 61,924 tons material, yielding 5,762,974 lb. copper, 2092 oz. gold and \$1,647 oz. silver. Of the copper, 1,370,974 lb. was custom metal. The cost of reducing to matte was \$2.34 per ton, a reduction of \$2.21 per ton, and the cost of converting matte to blister copper was \$9,000 per pound of copper. A new 19 by 100-ft. reverberatory was built, now working with the 19 by 60-ft. furnace. The enlarged smelter enables custom work to be profitably done. The total cost of producing copper was 13.327c. per pound, against 13.95c.

New construction amounted to \$155,272, at the mines and plants. The manager recommends that \$15,000 be spent each month on similar work as deemed expedient, eventually reducing the cost of production. The year's profit was \$124,917.

Inspiration Consolidated

Inspiration in May is expected to reach 10,000,000 pounds monthly output of copper for the first time comparing with 2,800,000 in April, 9,500,000 pounds in March and 7,900,000 (net) in February. The present 18 units are up to rated capacity of 800 tons daily. The two new units recently ordered, making 29 in all, will insure maintaining 10,000,000 pounds monthly output even on the very leanest ore—yielding only 20 pounds a ton versus 25-26 pounds as recently. Inspiration could earn a few pennies under \$5 per share per annum even on such lean ore, and on 14-cent copper has some 15 years' ore reserve developed.

Magma

Magma Copper Co. is now earning at the rate of nearly \$6 per share per annum. In the first quarter the company, owing to previous contracts received "only" 22.35c per pound of copper, whereas the average price in the open market was over 25c. The company has contracted for much of its output for the rest of the year at 25 1/2c per pound. Costs are around 9 1/2c (9.12c in the first quarter) and production 700,000 pounds per month.

The company's reports for the March quarter net profits of \$270,201. The figures compare with the December quarter as follows:

Quarter Dec. 31, 1915: Copper lbs., 1,879,452; cost copper lb., 8.35c; average selling price 18.10c; operating profit, \$128,795.

Quarter March 31, 1916: Copper lbs., 2,043,784; cost copper lb., 9.12c; average selling price 22.35c; operating profit \$270,201.

Sulphuric Acid

Arizona produces no sulphuric acid from its reduction of sulphide ores and great quantities of the material to make it, is sent into the atmosphere daily. The Calumet & Arizona at Douglas are now installing a plant for the manufacture of the acid for the treatment of its carbonate ore at the New Cornelia.

The United States Geological Survey report on sulphuric acid production as a by-product from zinc and copper smelting in 1915 shows that zinc smelters produced 484,942 tons of 60-degree acid, worth \$4,292,493, or \$8.85 per ton; copper smelters produced 360,552 tons of 50-degree acid, worth \$2,749,625, or \$7.63 per ton. Copper smelters also produced 59,189 tons of concentrated acid worth \$579,115, or \$9.78 per ton. The total tonnage, reduced to 50-degree strength, equaled 8,068,836 and was worth \$7,621,241. The total sulphuric acid production from all sources in the United States in 1915 was 1,868,152 short tons of 50 degree strength, worth \$29,869,080 and 189,152 tons of concentrated acid worth \$2,787,971, a total of \$32,657,051. Zinc and copper smelters produced more than 75 per cent total tonnage and nearly 25 per cent total value. Values are reckoned at prices actually contracted for and not open-market prices which were much higher during the latter part of the year.

Green Monster Mining Co.

Jerome, Arizona, May 26th. To the stockholders of the Green Monster Mining Co.:

Gentlemen:—Your directors beg leave to report as follows regarding the affairs of your company:

The recent issue and sale of 700,000 shares of the stock of your company was a complete success and the issue was very largely oversubscribed. The proceeds of this sale are available for the extensive work contemplated in the development of what is one of the largest mining properties in the Jerome district.

At the present time there is more than \$500,000.00 in the treasury and it is impossible to fully develop this great work within a period of months, the major portion of the treasury funds has been placed on deposit with strong banking institutions in Arizona and Texas, on Certificate of Deposit bearing four per cent interest, and the income derived from these deposits, amounting to about \$18,000.00 per annum, is much more than sufficient to take care of the overhead expense of

your company and will provide a considerable increase of cash capital.

There are 300,000 shares of the capital stock of your company unissued.

Work of development is being done on two promising claims of the Green Monster group, the "Cliff" and the "Revenue."

Owing to the complex geological conditions encountered, it has been deemed wise to make a thorough exploration of these properties before attempting to sink a shaft, in order to determine the most scientific and economical method of uncovering the ores which are confidently expected to be found at depth.

One assaying about \$500 per ton has already been found near the surface in the "Cliff" workings, and low grade ore is encountered in the "Cliff" and "Green Monster" tunnels.

Advantage is being taken of some of the old workings on the property and while they are not available for use at great depth, yet they are of material benefit in saving time and money and with the new work being done on them, will be useful in the development for several hundred feet in depth.

A most promising outcrop on the "Revenue" claim, more than five hundred feet in length and about ninety feet in width, is being developed and by extending a short tunnel nearby for about three hundred feet, the outcrop will be reached at a depth of nearly two hundred feet, thus determining the advisability of sinking deeper.

On the "Badger" claim by driving a tunnel from the old workings, a connection will be made with the inclined winze of the "Brookshire" claim and develop that property at considerable depth. At present it is impossible to further develop the ore in sight in the "Brookshire" on account of the water in the old inclined winze but as this new tunnel from the "Badger" claim will intersect it at a lower level it will be an easy matter to dewater the old workings and explore the ore body said to be at the bottom of the incline.

It is intended to begin work at once on the promising outcrops on the "Am. Axon" claim and should they prove up to expectations, a deep shaft will be sunk and cross cuts driven at depth to intersect the ore bodies.

A very complete geological report on your property accompanies this letter and it is the intention of your directors to keep the stockholders fully informed from time to time, of the work accomplished and contemplated, to the end that they may be in close touch with the development of their property.

Respectfully,

Neill E. Bailey,
David Morgan,
Thomas Taylor,
W. A. Drake,
W. S. Humbert.

Manganese

The Iron Age of recent date contains an expose of the so-called German secret substitute for manganese, the gist of which is as follows:

In smelting manganese ore into ferro-manganese, there has always been a considerable loss (20 per cent to 25 per cent) which runs off in the slag; and which loss is dependent upon the analysis of the ores and the ingredients necessary in their reduction.

It seems that the Germans are now working over all these old slag piles, and are recovering a considerable amount of manganese at an expense that would not be warranted under normal conditions, but with the price of manganese products several times normal it is now found to be a profitable operation, to which steel-makers here may be obliged to resort, if the war should continue for a further considerable period.

Hayden Smelter

The third reverberatory furnace is being added at the American Smelting & Refining company's Hayden smelter. The excavation is practically complete. This will increase the capacity of the plant 50 per cent.

The present normal capacity of the smelter is now 25,000 tons of ore a month, and it has been turning out 8,000,000 pounds of copper monthly. Since April 8, when the sampling mill was burned down, the plant has been handicapped. The sampling mill is now being rebuilt and will be complete about May 20. When the mill is finished the Christmas mine, which is also owned by the A. S. & R. company, will begin shipping 250 tons of ore a day to the smelter.

Commonwealth Extension

The report of developments by this company at Pearce, indicates that the east drift, on the 220 level, has again come in ore which promises to increase in size and in value as it is driven. The superintendent also reports that the drift being driven by the Commonwealth Mining and Milling company west from the Rainbow shaft, to tap the southern portion of the company's ground, is just about across the side lines of the property and has opened up a fine grade of milling ore.

Boston & Arizona

The manager of the Boston & Arizona properties report that in doing some work one of the three claims recently acquired an open cut disclosed some galena indicating extensive mineralization. The main tunnel is going in steadily and while still in limestone is rapidly approaching the contact which contains the ore bodies exposed on the surface. Galena and some copper sulphides still show in the face of the tunnel and are considered a favorable indication.

Iron Cap

We understand that Iron Cap shipped 23 cars of ore during April and that the returns on the first 15 totalled about \$25,000 gross. Among the shipments were two cars of very high grade ore which brought \$6,300. The 100-foot level a streak of ore four inches wide is reported which runs 72 per cent copper with good gold and silver values.

Again the Resurrection of the Old Silver King

C. V. Koomts & Co. are issuing a circular stock letter on this property. The main feature, possibilities and future are mainly rested upon the facts that the property adjoins the Magma, which in reality it does not. However here are extracts from the circular, our readers can choose themselves regarding the venture.

You probably received a letter from us some time within the last day or

two, telling you that a subscription to the company controlling the Silver King mine of Arizona, would no doubt yield you very large profits quickly. The Silver King company is to be incorporated for \$1,500,000, in shares of the par value of \$1.00 each. The company will own a property which has yielded, according to reports which can be in our estimation depended upon, between \$10,000,000, and \$15,000,000. This property adjoins the estate owned by Magma-Copper. The stock of this company is now regularly traded in on the New York curb and is selling at over \$17 a share.

We were informed yesterday that both the Silver Queen (which is now Magma) and the Silver King) closed down many years ago within ten days of each other, because of the low price of silver. We have reports in our office which tell in detail the merits of Silver King. We shall be glad to show these reports to you. We also have information from the last superintendent of Silver King, stating that it will not take over 60 to 90 days to unwater the Silver King mine, which has been idle for many years, and to demonstrate the property's merit. It is needless to say that process of reduction of ore twenty or twenty-five years ago was much less perfect than it is today.

We have been informed that the "dumps," (meaning the ore which was of too low grade to be milled in the days when the Silver King was operating at capacity, and the supposed-to-be worthless remnants of ore which had passed through the plants) have been yielding to persons having no right whatever to even own the property of the Silver King, from \$200 up daily, depending upon the ambition, nerve and industry of the "picker."

We do not intend to attempt to estimate the value of these "dumps," or the low grade ore in sight. We do suggest that you invest in the stock of the Silver King mine of Arizona at present prices, because we have been informed that the last workings can be unwatered within 60 to 90 days. The property of the Magma-Copper company adjoins the Silver King, but is lower in elevation. While Magma, (or as it was called, the Silver Queen) attained copper ore at about the 900-foot level, the Silver King may not reach copper until the 1100-foot level is attained. According to the reports which have been presented to us, copper was commencing to come into the ore when the Silver King closed down. We have interested ourselves in the Silver King mine of Arizona because of:

First—Capitalization is only \$1,500,000 in shares of the par value of \$1.00 each, and no stock whatever will be on the market except that which passes through our house for 50 days from date of this letter.

Second—The property of the company is famous and adjoins the estate of the Magma-Copper company, the stock of which has advanced from a few dollars a share to over \$17 during the past year.

Third—The reports and exhibits which we have in our office at this moment are mostly photographed copies of those on record in Washington.

Fourth—The persons interested in this proposition are of such high standing that even without our endorsement we would almost necessarily have to believe that a second Magma-Copper can be opened up and very quickly.

STRENGTH IN SILVER

That silver prices have not by any means reached their top level is the consensus of opinion among authorities in this country. The various mints of the European governments may reasonably be expected to continue large purchases during the duration of the war and long after peace has been declared, but there are other favorable factors to the silver situation, and the prospects of silver to some extent replacing gold for the conversion of paper money in Europe is gradually being realized in this country.

While the favorable outlook for the metal is not based solely on the likelihood of far-reaching changes to take place in the monetary systems of the world after this war, it is nevertheless probably not far from the mark to hold a belief, as some silver interests do, that many changes are sure to take place.

The war, however, must assume a great deal of responsibility for the sudden change in the prospect of silver, which took place some months ago. It would be idle to speculate on probabilities in the event that war had not occurred, but there are many who have held and still hold that silver would have seen brighter days without the vast conflict abroad.

It is true, however, that the war has wrought many changes and will bring about many more. The large issues of bonds and paper money by the different belligerents necessarily caused the locking-up of all available gold, so that the governments concerned may have absolute control over the yellow metal.

Dundee Arizona

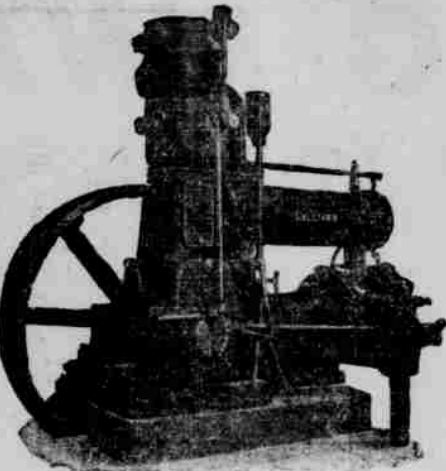
Dundee Arizona Copper appeared on the New York Curb Exchange last Saturday, and there were transactions in several thousand shares between 1-3/4 and 2. It is understood that the company has applied to the Curb Association for listing, and that as soon as the necessary papers have been received from the home office, Phoenix, Arizona, it will become a listed stock. The Dundee claims adjoin those of the United Verde Extension. The Dundee Arizona is an Alexander Mackay property. He and his associate F. S. Stephens, also of Dundee, Scotland, are among the best known capitalists operating in the southwest, controlling among other holdings the Matador Land & Cattle Co., W. C. Foster, the vice-president, is also treasurer of the Phoenix Savings Bank & Trust Co. Charles Shannon, another director, was formerly head of the Shannon Copper Co.

The company's financial report shows cash in banks of \$55,293; accounts receivable (contracts of sale of treasury stock) \$88,300; and working capital of \$143,750, which is considered ample for all development work. The entire capital stock is \$500,000, par value, \$1.

ARTICLES OF INCORPORATION

Be it known, that we, the undersigned residents of Phoenix, Maricopa County, Arizona, do hereby associate ourselves together and form a Corporation under the laws of Arizona,

Transmission Machinery,
Hoisting Machinery
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Belting, Packing



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Jobbers-Distributors

Phoenix, Arizona

and adopt the following Articles of Incorporation.

ARTICLE I

The name of the Corporation is Chambers Transfer and Storage Company and its principal place of transacting business in Arizona is Phoenix. Offices may be established, business transacted at such places within or outside the State of Arizona as the by laws shall provide.

ARTICLE II

The general nature of the business to be transacted is as follows: To do a general transfer, drayage, storage and warehouse business, and every thing pertaining thereto; To purchase, lease, own or otherwise acquire, maintain and operate trucks, auto-trucks, drays, wagons, horses and any and all kinds of horse-drawn, or motor-driven vehicles for the uses and purposes of the Corporation; To purchase, buy, lease or otherwise acquire, operate and maintain warehouses and storage rooms for the storing or warehousing of any and all kinds of freight, goods, wares and merchandise of every description, and to let, lease or demise the same to persons or Corporations; To purchase, own, buy, lease or otherwise acquire and to deal in real estate and personal property of every kind and description, and to sell, lease or otherwise dispose of the same; To own and control shares of its own Capital Stock and that of other Corporations and to vote any stock owned by it the same as a natural person might do; To issue bonds, notes, debentures and other evidences of indebtedness and secure the payment of the same by mortgage, trust, deed or otherwise; To borrow and loan money and in general to do and perform such acts and things, and transact such business in connection with the foregoing objects not inconsistent with the law in any part of the world as the Board of Directors may deem to be to the advantage of the Corporation.

ARTICLE III

The Capital Stock of the Corporation shall be Twenty Thousand Dollars divided into two hundred shares of the par value of one Hundred Dollars each, which shall be paid in at such time as the Board of Directors may designate in cash, real or personal property, services, lease, or any other valuable right or thing for the uses and purposes of the Corporation, and all shares of the Capital Stock when so issued shall thereupon and thereby become full paid the same as paid for in cash at par, and shall be non-assessable forever, and the judgment of the Directors as to the value of any property right or thing acquired in exchange for Capital Stock shall be conclusive.

ARTICLE IV

The time of the Commencement of this Corporation shall be the date of the issuance to it of a Certificate of Incorporation by the Arizona Corporation Commission and the termination thereof shall be twenty-five years thereafter, with privilege of renewal perpetual succession as provided by law.

ARTICLE V

The affairs of this Corporation shall be conducted by a Board of Directors, consisting of not less than three nor more than five to be determined by the By-laws of the Company. The Directors shall be elected by and from among the stockholders of the Company on the first Tuesday in March of each year beginning in 1917. Until their successors are elected and qualified the following named persons shall be the Directors:

ARTICLE VI

The President and Secretary of this Company, or either of them, are authorized to sell, transfer and convey, or mortgage, any and all real or personal property of this Company, upon such terms and conditions as they may deem for the best interest of the Company; and are further authorized and empowered to make, execute and deliver for and on behalf of the Company all deeds and mortgages of and upon the property now owned by this Company, or which may be hereafter acquired, also to execute assignments and releases of mortgages and leases and to satisfy and discharge any and all such instruments when they have been paid or satisfied.

ARTICLE VII

The Directors shall adopt by-laws for the government of the Corporation and may amend the same. They shall have power to fill vacancies in the Board from any cause, and to appoint from among their own number

an Executive Committee which, to the extent provided by resolution or by said by-laws, shall have and exercise the powers granted the Directors by these Articles.

ARTICLE VIII

The highest amount of indebtedness or liability to which the Corporation is at any time to subject itself is Thirteen Thousand Three Hundred Dollars.

ARTICLE IX

The private property of the stockholders of this Corporation shall be forever exempt from its Corporate debts or obligations of any kind whatsoever. In Witness whereof we hereto affix our signatures this 28/1916.

H. W. CHAMBERS

E. T. HOOPER

R. C. SHIFLET

State of Arizona,
County of Maricopa—ss.

The foregoing Articles of Incorporation were acknowledged before me this 8th day of March 1916, by H. W. Chambers, E. T. Hooper, and R. C. Shiflet.

(SEAL) G. J. CONRAD,
Notary Public,
My Com. Expires 2/20/1920.

IN THE SUPERIOR COURT
OF THE
COUNTY OF MARICOPA, STATE
OF ARIZONA

In the Matter of the Estate of M. A. R. Tyrrell, Deceased.
Notice of Sale of Real Estate at Public Auction.

NOTICE IS HEREBY GIVEN, That in pursuance of an order of the Superior Court of the County of Maricopa, State of Arizona, made on 20th day of March, 1916, in the matter of the estate of M. A. R. Tyrrell, deceased, the undersigned, the Administrator of the Estate of M. A. R. Tyrrell, deceased, will sell at public auction, to the highest bidder, subject to confirmation by said Superior Court, on Saturday, the 3rd day of June, 1916, at 2 o'clock p. m., at the front door of the County Court House of the County of Maricopa, Arizona, the following described real estate:

cons in the City of Phoenix in the said County of Maricopa, State of Arizona, the following described real property, to wit: Lot 15, Block 11, Collins Addition to the City of Phoenix, Maricopa County, Arizona, together with the improvements thereon consisting of dwelling house and etc., known and designated as No. 1419 East Washington Street, Phoenix Arizona.

Terms of sale: Cash; payable 10% on acceptance of bid and the balance on confirmation of the sale by the Court and delivery of Administrator's Deed.

R. M. FLEMING,
Administrator of the Estate of M. A. R. Tyrrell, deceased.
Dated May 10, 1916.

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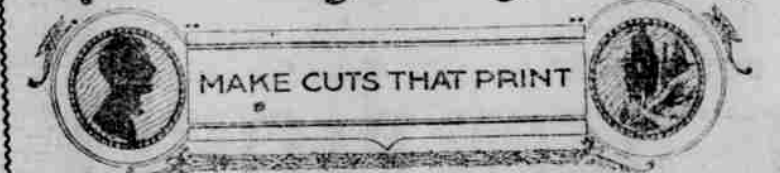
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